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EXAMINER

LUGO, CARLOS

ART UNIT PAPER NUMBER

3676

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/730,475

Applicant(s)

SMOCK ET AL.

Examiner

Carlos Lugo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10, drawn to an oven door lock mechanism, classified in class 292, subclass 109.
 - II. Claims 11-20, drawn to an oven door mechanism, classified in class 292, subclass 110.
2. Inventions Group I and in Group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination does not require that a cam that pivotally moves with respect to a shaft connected to a motor as set forth in the subcombination. The subcombination has separate utility such as a lock mechanism for a different device such as a washing machine, a vehicle, etc.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Mr. David Lockman on December 3, 2004, a provisional election was made without traverse to prosecute the invention of Group

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I, claims 1-10. Applicant in replying to this Office action must make affirmation of this election. Claims 11-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

4. The specification is objected to because of the following informalities:

- Page 1 Line 2, change "10/ _____" to -10/730296-.

Appropriate correction is required.

Claim Objections

5. **Claims 4 and 8 are objected** to because of the following informalities:

- Claim 4 Line 1, change "claim 3 and further" to -claim 3 further-.
- Claim 8 Line 1, change "claim 3 and further" to -claim 3 further-.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-6 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 4,796,932 to Tame.

Regarding claim 1, Tame discloses a lock mechanism comprising a latch (74) supported above and coupled to a frame (12) to rotate about a pivot axis (31) and rotatable between an unlatched and latched position. The latch includes a follower

(118) surface offset from the pivot axis and a latching member (80) extending beyond the frame for interacting with the door.

A motor (138) drives a shaft (31) when the motor is actuated.

A cam (40) is mounted to the shaft for rotation thereabout. The cam is rotatable between a non-blocked position (Figure 4) and a blocked position (Figure 5) wherein the cam blocks movement of the latch from the latched position to the unlatched position (indirectly when the blocker 40 moves to a position wherein the lobe 54 hit the switch 116 and blocks the movement of the latch, Col. 4 Lines 7-34).

However, Tame fails to disclose that an actuator pin is at the mounted plate so that an end extends beyond the mounting plate and that the cam rotates about 60°. As to the location of the actuator pin, Tame discloses an actuator pin (16) that is supported at the door.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the actuator pin supported and extending from the frame, instead of the door, because the reversal of components in a prior art is considered as a design consideration that will not affect the mechanism of the lock.

As to the rotation of the cam, Tame illustrates that the angle difference between the lobes 52 and 54 is about 120°.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the claimed quantitative value (60°), since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

As to claims 2 and 5, Tame discloses that the lock mechanism further comprises a switch (114) controlling a motor driver circuit and wherein movement of the latch between the unlatched and latched positions induces a change in state of the switch from a state in which the motor drive circuit is disabled to a state in which the motor driver circuit is enabled (Col. 4 Lines 7-34).

As to claim 3, Tame discloses that the cam (40) rotates between the non-blocked position wherein the cam does not inhibit rotation of the latch and the blocked position.

As to claim 4, Tame discloses that the lock mechanism further comprises a cam-actuated switch (112) and wherein rotation of the cam between the non-blocked position and the blocked position results in actuation of the switch.

As to claim 6, Tame fails to disclose that the cam includes a three lobed cam having three lobes and each two lobes defining a void therebetween. Tame discloses that the cam (40) include only two lobes defining a void.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have more than two lobes in the cam, because having more than one component of a prior art device is a design consideration within the skill of the art since the current specification fails to provide a good argument or criteria for having more than two lobes.

Allowable Subject Matter

8. **Claims 7 and 8 are objected** to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 9 and 10 would also be allowed because the claims depend from claim 8.

Reasons For Allowable Subject Matter

9. The following is an examiner's statement of reasons for allowable subject matter:

Claims 7 and 8 presents allowable subject matter over the prior art of record because the teachings of the references taken as a whole do not teach or render obvious the combination set forth, including that the latch includes a blockable arm having a blocked member offset from the pivot axis and that is disposed between the voids of the cam lobes (claim 7); and that the lock mechanism further comprises a lever member that is couple to the latch (claim 8).

As to claim 7, Tame (US 4,796,932) fails to disclose that the latch includes a blockable arm having a blocked member offset from the pivot axis and that is disposed between the voids of the cam lobes.

As to claim 8, Tame fails to disclose that the lock mechanism further comprises a lever or blockable member that is couple to the latch.

Phillips (US 6,079,756) discloses a lock mechanism comprising a mounting plate (30) mounted to a frame and a latch (4) mounted to the mounting plate for movement about a pivot axis (at 36) and rotatable about the pivot axis between an

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unlatched and latched position. The latch includes a follower surface (46) offset from the pivot axis.

An actuator pin (60), movably supported by the mounting plate, includes an outer end (64) extending beyond the mounting plate for engaging the oven door (14) upon closure and a cam end (68) engaging the follower surface for rotating the latch into the latched position wherein the door is adapted to be captured by the latch.

A blocker (86) is selectable movable into a blocking position when the latch is in a latched position for interfering with the rotation of the latch such that the latch is locked into the latched position for locking the oven door in a closed position.

An electromechanical actuator (82) is adapted to move the blocker.

However, Phillips fails to disclose that movement of the blocker into the blocking position induces additional movement of the latch to pull the oven door closer to the frame. Phillips discloses that the blocker (86) is used only to block the rotation of the latch, not to impart additional movement to the latch.

Arute (US 4,593,945) discloses an oven lock mechanism comprising a mounting plate (10); a latch (24) that includes a follower surface (30) offset from the latch pivot axis; an actuator pin (28); a blocker (26); and an electromechanical actuator (29).

However, Arute fails to disclose that movement of the blocker into the blocking position induces additional movement of the latch to pull the oven door closer to the frame.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo whose telephone number is 703-305-9747. The examiner can normally be reached on 9-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 703-308-2686. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

C. L.

Carlos Lugo
AU 3676

December 6, 2004.



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
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